

**Notice of Allowability**

Application No.

09/731,490

Examiner

Haresh Patel

Applicant(s)

MILLER ET AL.

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/28/2005.
2. ☒ The allowed claim(s) is/are 1-12, 14 and 32-48.
3. ☒ The drawings filed on 06 December 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


\* Certified copies not received: 1.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 12/20/04, 02/28/05, 5/4/05, 7/1/04, 5/17/04,
4. ☐ Examiner's Comment Regarding Requirement for Deposit 4/12/04  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 5/23/2005.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
JOHN FOLLANSBEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

### EXAMINER'S AMENDMENT

1. Claims 1-12, 14 and 32-48 are presented for examination. Claims 13, 15-31 are cancelled.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with Lance R. Sadler on May 17, 2005.

#### *Amendments to the Specification*

4. Line 1, page 7 of the specification, replace, "Figs 31-36", with "Figs 31-367".

#### *Amendments to the Claims*

5. Claim 13 is cancelled.
6. The claims 1-12, 14 and 32-48 are amended as below:

Claim 1 (Currently Amended): A computer storage medium comprising a plurality of executable instruction, which when executed, implement a software object used ~~One or more computer-readable media embodying a software object for use in a media processing filter graph,~~  
the software object comprising:

an input, coupled to a media source, to receive content from the media source; and

a dynamically determined plurality of outputs, each responsive to the input and coupled to a source processing chain, to provide each of the source processing chains with their requested respective disparate media type source clips from a single instance of the media source in accordance with a user defined media processing project, wherein said object is configured to parse the media source content into the respective disparate media type source clips provided by said single instance of the media source.

Claim 2 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 1, wherein the software object alleviates each source processing chain from opening an independent instance of the source.

Claim 3 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 1, wherein the number of outputs are dynamically determined by the number of independent processing chains required to process media content from the media source.

Claim 4 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 1, wherein the source processing chains are comprised of filter graph filters which uniquely transform the media content in some way.

Claim 5 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 1, wherein the object receives requests for media content from one or more of the source processing chains and satisfies said requests.

Claim 6 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 5, wherein the object issues seek commands to the media source to satisfy the request(s) for media content.

Claim 7 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 5, wherein the object serializes simultaneous requests for media from the source received from multiple source chains.

Claim 8 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 7, wherein the object prioritizes the serialized requests based, at least in part, on a relative project time of each of the requested clips.

Claim 9 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 6, wherein the object receives request for media content from a user through a higher-level application, and issues a seek command to satisfy the request.

Claim 10 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 1, wherein multiple objects are invoked and coupled to an associated

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multiple instances of source filters to satisfy multiple simultaneous requests for content from the sources.

Claim 11 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 1, wherein the object is exposed by an operating system executing on a computing system implementing a media processing system.

Claim 12 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 1, wherein the object is an instance of a segment filter exposed to a media processing system executing on a computer system through a render engine.

Claim 14 (Currently Amended): A computing system comprising:  
a storage medium having stored therein a plurality of executable instructions; and  
an execution unit, coupled to the storage medium, to execute at least a subset of the plurality of executable instructions to implement the software object of ~~an object according to~~ claim 1.

Claim 32 (Currently Amended): A computer storage medium comprising a plurality of executable instruction, which when executed, implement a software object ~~One or more computer-readable media embodying a software object~~ coupled to a source processing chain in a media processing filter graph comprising:

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a software object input, coupled to a media source, to receive content from the media source;

a dynamically determined plurality of software object outputs, each responsive to the processing chain, to requested respective disparate media type source clips from a single instance of the media source in accordance With a user defined software object input and coupled to a plurality of source provide each of the source processing chains with their media processing project, wherein said object is configured to parse the media source content into the respective disparate media type source clips provided by said single instance of the media source;

the source processing chain comprising:

a scalable, dynamically reconfigurable matrix switch having a plurality of inputs and a plurality of outputs;

at least one matrix switch input being communicatively linked with a first processing chain portion;

at least one other matrix switch input being communicatively linked with a second processing chain portion; the matrix switch being configured to dynamically couple one or more of the matrix switch inputs to one or more of the matrix switch outputs.

Claim 33 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 32, wherein the matrix switch is configured to dynamically couple said one or more matrix switch inputs to said one or more matrix switch outputs based, at least in part, on a media time associated with the user defined media processing project.

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Claim 34 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 32, wherein the matrix switch is configured to dynamically couple said one or more matrix switch inputs to said one or more matrix switch outputs based, at least in part, on a project time associated with the user defined media processing project.

Claim 35 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 32, wherein the matrix switch is configured to dynamically couple said one or more matrix switch inputs to said one or more matrix switch outputs based, at least in part, on content of a matrix switch programming grid.

Claim 36 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 32, wherein the matrix switch is configured to dynamically couple said one or more matrix switch inputs to said one or more matrix switch outputs based, at least in part, on a media time associated with the user defined media processing project, a project time associated with the user defined media processing project, and content of a matrix switch programming grid.

Claim 37 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 32, wherein the software object alleviates each source processing chain from opening an independent instance of the source.

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Claim 38 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 32, wherein the number of software object outputs are dynamically determined by the number of independent processing chains required to process media content from the media source.

Claim 39 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 32, wherein the object receives requests for media content from one or more of the source processing chains and satisfies said requests.

Claim 40 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 39, wherein the object issues seek commands to the media source to satisfy the request(s) for media content.

Claim 41 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 39, wherein the object serializes simultaneous requests for media from the source received from multiple source chains.

Claim 42 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 41, wherein the object prioritizes the serialized requests based, at least in part, on a relative project time of each of the requested clips.



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Claim 43 (Currently Amended): The computer storage medium ~~one or more computer-readable media~~ of claim 32, wherein the software object is an instance of a segment filter exposed to a media processing system executing on a computer system through a render engine.

Claim 44 (Currently Amended): A computer storage medium comprising a plurality of executable instructions, which, when executed, implement a system comprising:

means for coupling to a media source to receive content from the media source to provide an input;

means for dynamically determining a plurality of outputs, each responsive to the input and coupled to a plurality of source processing chains, to provide each of the source processing chains with their requested respective disparate media type source clips from a single instance of the media source in accordance with a user defined media processing project, wherein said means for dynamically determined is configured to parse the media source content into the respective disparate media type source clips provided by said single instance of the media source;

the source processing chain comprising:

a scalable, dynamically reconfigurable matrix switch having a plurality of inputs and a plurality of outputs;

at least one matrix switch input being communicatively linked with a first processing chain portion;

at least one other matrix switch input being communicatively linked with a second processing chain portion;

the matrix switch being configured to dynamically couple one or more of the matrix switch inputs to one or more of the matrix switch outputs.

Claim 45 (Currently Amended): The computer storage medium of claim 44, wherein the instructions implement a system in which the matrix switch is configured to dynamically couple said one or more matrix switch inputs to said one or more matrix switch outputs based, at least in part, on a media time associated with the user defined media processing project.

Claim 46 (Currently Amended): The computer storage medium of claim 44, wherein the instructions implement a system in which the matrix switch is configured to dynamically couple said one or more matrix switch inputs to said one or more matrix switch outputs based, at least in part, on a project time associated with the user defined media processing project.

Claim 47 (Currently Amended): The computer storage medium of claim 44, wherein the instructions implement a system in which the matrix switch is configured to dynamically couple said one or more matrix switch inputs to said one or more matrix switch outputs based, at least in part, on content of a matrix switch programming grid.

Claim 48 (Currently Amended): The computer storage medium of claim 44, wherein the instructions implement a system in which the matrix switch is configured to dynamically couple said one or more matrix switch inputs to said one or more matrix switch outputs based, at least in part, on a media time associated with the user defined media processing project, a project time

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associated with the user defined media processing project, and content of a matrix switch programming grid.

***Allowable Subject Matter***

7. Claims 1-12, 14, 32-48 are allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Haresh Patel

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JOHN FOLLANSBEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100